## OPINIONS AND DECLARATIONS RENDERED BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by
FRANCIS HEMMING, с.м.G., с.b.E.
Secretary to the Commission

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## OPINION 498

Validation under the Plenary Powers of the specific name tuberculatus, as published by Hall (J.W.) in 1859 in the combination Acidaspis tuberculatus, and use of the same Powers to provide an assured basis for the use of the generic name Leonaspis Richter (R.) \& Richter (E.), 1917 (Class Trilobita)

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# INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE 

## COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 498

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Vice-President : Senhor Dr. Afranio do Amaral (Sao Paulo, Brazil) (12th August 1953) Secretary: Mr. Francis Hemming (London, England) (27th July 1948)

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(Arranged in order of precedence by reference to date of election or of most recent re-election, as prescribed by the International Congress of Zoology)
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Doc. Dr. Ferdinand Prantl (Národni Museum V Praze, Prague, Czechoslovakia) (30th October 1954)
Professor Dr. Wilhelm Kühnelt (Zoologisches Institut der Universität, Vienna, Austria) (6th November 1954)
Professor F. S. Bodenheimer (The Hebrew University, Jerusalem, Israel) (11th November 1954)

Professor Ernst Mayr (Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.) (4th December 1954)
Professor Enrico Tortonese (Museo di Storia Naturale "G. Doria", Genova, Italy) (16th December 1954)

## OPINION 498

# VALIDATION UNDER THE PLENARY POWERS OF THE SPECIFIC NAME ' TUBERCULATUS '’, AS PUBLISHED BY HALL (J.W.) IN 1859 IN THE COMBINATION "ACIDASPIS TUBERCULATUS", AND USE OF THE SAME POWERS TO PROVIDE AN ASSURED BASIS FOR THE USE OF THE GENERIC NAME <br> " LEONASPIS" RICHTER (R.) \& RICHTER (E.), 1917 (CLASS TRILOBITA) 

RULING :-(1) The following action is hereby taken under the Plenary Powers :-
(a) The under-mentioned names are hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy :-
(i) the generic name Acanthaloma Conrad, 1840 ;
(ii) the specific name spinosa Conrad, 1841, as published in the combination Acantholoma [sic] spinosa;
(iii) the specific name conradi Castelnau, 1843, as published in the combination Acantholoma [sic] conradi.
(b) The under-mentioned specific name is hereby suppressed for the purposes both of the Law of Priority and of those of the Law of Homonymy :-
tuberculatus Conrad, 1840, as published in the combination Acidaspis tuberculatus.
(c) It is hereby directed that the binomen Acidaspis tuberculatus as published by Hall (J.W.) in 1859 be treated as being a scientific name (binominal combination) then published for the first time, and the above name, as so published, is hereby validated.
(2) The under-mentioned generic name is hereby placed on the Official List of Generic Names in Zoology with the Name No. 1241 :-

Leonaspis Richter (R.) \& Richter (E.), 1917 (gender : feminine) (type species, by original designation : Odontopleura leonhardi Barrande, 1846).
(3) The under-mentioned specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers severally specified below :-
(a) leonhardi Barrande, 1846, as published in the combination Odontopleura leonhardi (specific name of type species of Leonaspis Richter (R.) \& Richter (E.), 1917) (Name No. 1466) ;
(b) tuberculatus Hall (J.W.), 1859, as published in the combination Acidaspis tuberculatus and as validated under the Plenary Powers in (1)(c) above (Name No. 1467).
(4) The under-mentioned generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers severally specified below :-
(a) Acanthaloma Conrad, 1840, as suppressed under the Plenary Powers in (1)(a)(i) above (Name No. 1093);
(b) Acantholoma Conrad, 1841 (an Erroneous Subsequent Spelling for Acanthaloma Conrad, 1840) (Name No. 1094) ;
(c) Acantholoma Castelnau, 1843 (an Erroneous Subsequent Spelling for Acanthaloma Conrad, 1840) (Name No. 1095).
(5) The under-mentioned specific names are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Numbers severally specified below :-
(a) spinosa Conrad, 1841, as published in the combination Acantholoma [sic] spinosa, as suppressed under the Plenary Powers in (1)(a)(ii) above (Name No. 489) ;
(b) conradi Castelnau, 1843, as published in the combination Acantholoma [sic] conradi, as suppressed under the Plenary Powers in (1)(a)(iii) above (Name No. 490) ;
(c) tuberculatus Conrad, 1840, as published in the combination Acidaspis tuberculatus, as suppressed under the Plenary Powers in (1)(b) above (Name No. 491).
(6) The under-mentioned family-group name is hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name No. 236 :-
acanthalominae Prantl \& Přibyl, 1949 (type genus : Acanthaloma Conrad, 1840) (invalid under Declaration 20 because name of type genus suppressed under the Plenary Powers in (1)(a)(i) above) (Name No. 236).

## I. THE STATEMENT OF THE CASE

On 1st March 1955, Dr. H. B. Whittington (Museum of Comparative Zoology, Cambridge, Massachusetts, U.S.A.) submitted to the International Commission on Zoological Nomenclature an
application having as its principal purpose the suppression under the Plenary Powers of the generic name Acanthaloma Conrad, 1840, and the consequent protection of the gencric name Leonaspis Richter (R.) \& Richter (E.), 1917 (Class Trilobita). Later Dr. Whittington revised this application in certain respects. The application in its revised form which was submitted to the Commission on 28th November 1955, was as follows :-

Proposed use of the Plenary Powers to suppress certain " nomina dubia" and thus to validate the specific name "tuberculatus" as used in the combination "Acidaspis tuberculatus" Hall (J.W.) in 1859 and, by suppressing the generic name "Acanthaloma " Conrad, 1840, to provide an assured basis for the generic name "Leonaspis " Richter
(R.) \& Richter (E.), 1917 (Class Trilobita)

## By H. B. WHITTINGTON

(Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.)

The object of the present application is to ask the International Commission on Zoological Nomenclature to use its Plenary Powers for the twofold purpose (a) of validating the specific name tuberculatus as used in the combination Acidaspis tuberculatus by Hall (J.W.) in 1859, and (b) to provide an assured basis for the use of the generic name Leonaspis Richter (R.) and Richter (E.), 1917 (Class Trilobita). The circumstances of this case are set out in the following paragraphs.
2. The generic name Acanthaloma Conrad, $1840(: 205)$ was proposed for a new species of trilobite, the specimen of which consisted of that portion of the exoskeleton called the free cheek. No name was proposed for the species concerned. The description given by Conrad was as follows :-

This is a fragment apparently of the buckler of a most singular species; it is elongated into a curved spine and has a row of spines along the front, and three spines on the opposite side of the prolongation. Not uncommon in the shaly limestone near Clarksville.
3. In the same paper ( $1840: 205$ ) Conrad proposed the new name Acidaspis tuberculatus for the cephalon of a trilobite from the same locality, and gave a description. It may be that this cephalon is a part of the same species as that described as Acanthaloma, but one cannot be sure, since the whereabouts of neither of Conrad's specimens is known.
4. In discussing fossils from New York State, Conrad (1841:31) listed Acantholoma, and on a later page (1841:39) Acillaspis tuberculatus and Acantholoma spinosa (new name), but without descriptions or reference to his earlier report. It is to be noted that the spelling "Acantholoma" is used, rather than "Acanthaloma". This variant, an Erroneous Subsequent Spelling, possesses no status in nomenclature under the decisions taken by the Copenhagen Congress (1953, Copenhagen Decisions zool. Nomencl. : 45, Decision 73).
5. Castelnau (1843:23) proposed the name Acantholoma [sic] conradi, giving a reference to Conrad (1840:205) and a French translation of that author's description and mentioning the locality, but giving no figure.
6. R. and E. Richter (1952), in a review of this case, have claimed that Conrad's names of 1840 and 1841 have no validity, and that therefore Castelnau's proposal, though legitimate, has no validity either. It appears however, from a decision taken by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, Bull. zool. Nomencl. 4 : 160, 346) that a name published in the way in which Conrad published the name Acanthaloma is available and that its type species is the first species placed in that genus by a subsequent author.
7. Hall (1859:368-370; 1861, Pl. 79, figs. 1-14), unaware of Castelnau's work, described Acidaspis tuberculatus, and placed in the synonymy of this species Acidaspis tuberculatus Conrad, 1840, Acantholoma [sic] Conrad, 1840, and Acantholoma spinosa Conrad, 1841. The specimens on which Hall based his description are preserved in the New York State Museum, together with additional material, all of which comes from the lower Devonian limestones in or near Clarksville. A re-description of this material is in press (Whittington, 1956). ${ }^{1}$
8. Names published for nominal species without adequate description are a serious danger to stability in nomenclature and this danger is greatly increased when none of the type material is extant. It is very desirable therefore that nomina dubia of this kind should be deprived of their power of causing harm by being suppressed by the Commission under its Plenary Powers. In the present case these considerations apply to the following names, all of which may apply-though there can never be any certainty of this-to the species fully described by Hall in 1859 under the name Acidaspis tuberculatus :-(1) tuberculatus Conrad, 1840, as published in the combination Acidaspis tuberculatus ; (2) spinosa Conrad, 1841, as published in the combination Acantholoma spinosa; (3) conradi Castelnau, 1843, as published in the combination Acantholoma conradi. All these names should, I recommend, be suppressed by the Commission under its Plenary Powers. The first should be suppressed for the purposes both of the Law of Priority and of the Law of Homonymy, thus clearing the way for the validation

[^0]by the Commission of the name tuberculatus as used by Hall in 1859 in the combination Acidaspis tuberculatus. The second and third of the names recommended for suppression should be suppressed for the purposes of the Law of Priority only, thus preventing any valid subsequent use of these names in the genus concerned.
9. As indicated in paragraph 7 above, Hall did not use Conrad's generic name, and it has not been used subsequently-i.e. for about 100 years-by authors who have treated of this family. In 1917 (Centralbl. Min. Geol. Pal. 1917 : 465) R. and E. Richter proposed the name Leonaspis as the name for a subgenus of Acidaspis Murchison. This name has been used subsequently for the species-group to which A. tuberculatus Hall, 1859 belongs.
10. In 1949 (: 38, 151) Prantl and Přibyl proposed that the name Acanthaloma Conrad, 1840, be brought back into use for a genus of trilobites. R. and E. Richter (1952) claim that this revival would not promote stability in nomenclature, in that it would supersede the name Leonaspis that has been in use for 38 years. I am in agreement with this view.
11. Neither the genus Leonaspis Richter (R.) \& Richter (E.), 1917, nor the genus Acanthaloma Conrad, 1840, is generally regarded as the type genus of a taxon of the family-group. The second of these genera has, however, been taken as the base for a subfamily name acanthalominae by Prantl \& Přibyl (1949, Rozpr. Stát. Geol. Ust. Ceskoslovenské Rep. $12: 18,35,133,151$ ). Since the object of the present application is to secure the suppression of the name Acanthaloma Conrad under the Plenary Powers, it follows that similar action is desired in relation to the above family-group name. Since that suppression would follow automatically upon the suppression of the generic name upon which it is based all that is required is that the former name should be placed upon the Official Index of Reiected and Invalid Family-Group Names in Zoology. I accordingly ask that this action should be taken by the International Commission.
12. In the light of the foregoing, I ask the International Commission on Zoological Nomenclature :-
(1) to use its Plenary Powers :-
(a) to suppress the under-mentioned names for the purposes of the Law of Priority but not for those of the Law of Homonymy :-
(i) Acanthaloma Conrad, 1840 ;
(ii) spinosa Conrad, 1841, as published in the combination Acantholoma spinosa;
(iii) conradi Castelnau, 1843, as published in the combination Acantholoma conradi;
(b) to suppress the under-mentioned name for the purposes both of the Law of Priority and of the Law of Homony-my:-tuberculatus Conrad, 1840, as pablished in the combination Acidaspis tuherculatus ;
(c) to direct that the binomen Acidaspis tuberculatus, as published by Hall (J.W.) in 1859 (Geol. Survey New York, Pal. 3:368-370) be treated as being a scientific name (binominal combination) then published for the first time and to validate the above name as so published ;
(2) to place the under-mentioned generic name on the Official List of Generic Names in Zoology:-Leonaspis Richter (R.) \& Richter (E.), 1917 (gender : feminine) (type species, by original designation: Odontopleura leonhardi Barrande, 1846) ;
(3) to place the under-mentioned specific names on the Official List of Specific Names in Zoology :-
(a) leonhardi Barrande, 1846, as published in the combination Odontopleura leonhardi (specific name of type species of Leonaspis Richter (R.) \& Richter (E.), 1917) ;
(b) tuberculatus Hall, 1859, as published in the combination Acidaspis tuberculatus, as validated under the Plenary Powers under (1)(c) above ;
(4) to place the under-mentioned generic names on the Official Inde. of Rejected and Invalid Generic Names in Zoology :-
(a) Acanthaloma Conrad, 1840, as suppressed under the Plenary Powers under (1)(a)(i) above ;
(b) The under-mentioned Erroneous Subsequent Spellings for Acanthaloma Conrad, 1840 :-
(i) Acantholoma Conrad, 1841 ;
(ii) Acantholoma Castelnau, 1843 ;
(5) to place the under-mentioned specific names on the Official Index of Rejected and Invalid Specific Names in Zoology :-
(a) The names specified in (1)(a)(ii) and (1)(a)(iii) above respectively, as there suppressed under the Plenary Powers ;
(b) tuberculatus Conrad, 1840, as published in the combination Acidaspis tuberculatus, as suppressed under the Plenary Powers under (1)(b) above.
(6) to place the under-mentioned family group name on the Official Index of Rejected and Invalid Family-Group Names in Zoology:acanthalominae Prantl \& Přibyl, 1949 (type genus : Acanthaloma Conrad, 1840, a name proposed under (1)(a)(i) above to be suppressed under the Plenary Powers).

## References

Castelnau, F. de, 1843. Essai sur le Système Silurien de l'Amérique septentrionale. Paris: 1-56, pls. 1-27.
Conrad, T. A., 1840. Third Annual Report, Palaeontological Department, Geological Survey of New York, Albany; Assembly No. 50 : 199-207.

- 1841. Fifth Annual Report, Palaeontology of the State of New York, Albany ; Assembly No. 150 : 25-57.
Hall, J. W., 1859-61. Geological Survey of New York. Palaeontology : vol. III. Albany : 1-532 (1859), pls. 1—120 (1861).
Prantl, F., and Přibyl, A., 1949. Studie o Trilobitech Nadčeledi Odontopleuracea Nov. Superfam. Rozpravy Stát. Geol. Ust. Ceskoslovenské Rep., Praha 12:1-221 (Czech and English texts), pls. 1-11.
Richter, R. and E., 1952. Die Typen von Proetus tenuimargo und Leonaspis aries. Senckenbergiana 33 : 109—114.
Whittington, H. B., 1956. "Type and Other Species of Odontopleuridae (Trilobita)." J. Paleontol. 30 (in press). ${ }^{2}$


## II. THE SUBSEQUENT HISTORY OF THE CASE

2. Registration of the present application : Upon the receipt of Dr. Whittington's application the question of the suppression of the generic name Acanthaloma Conrad, 1840 (Class Trilobita) was allotted the Registered Number Z.N.(S.) 998.
3. Support received from C. J. Stubblefield (Geological Survey \& Museum, London) prior to publication : On 28th November 1955,
[^1]Dr. C. J. Stubblefield (Geological Survey \& Museum, London) addressed to the Office of the Commission the following letter of support for Dr. Whittington's proposals :-

I gladly support this application since I share the views of H. B. Whittington and R. \& E. Richter that the revival of Acanthaloma will serve no useful purpose, nor will it promote stability in nomenclature.
4. Publication of the present application : On 30th November 1955 Dr. Whittington's application and Dr. Stubblefield's note of support were sent to the printer and were published on 9th June 1956 in Part 1 of Volume 12 of the Bulletin of Zoological Nomenclature (Whittington, 1956, Bull. zool. Nomencl. 12:22-26; Stubblefield, 1956, ibid. 12 : 26).
5. Issue of Public Notices: Under the revised procedure prescribed by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, Bull. zool. Nomencl. 4 : 51-56), Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case was given on 9th June 1956 (a) in Part 1 of Volume 12 of the Bulletin of Zoological Nomenclature (the Part in which Dr. Whittington's application was published) and (b) to the other prescribed serial publications. In addition, such Notice was given to four general zoological serial publications and to three palaeontological serials in Europe and America.
6. Support received after publication of the present application : Subsequent to the publication of the present application notes of support for the action proposed were received from two specialists, of whom one was resident in the U.S.A. and the other in Denmark. The communications so received are reproduced in the immediately following paragraphs.
7. Support received from Alan B. Shaw (Shell Oil Company, Denver, Colorado, U.S.A.) : On 23rd October 1956, Mr. Alan B. Shaw (Shell Oil Company, Denver, Colorado, U.S.A.) addressed
the following letter to the Office of the Commission in support of the present case (Shaw, 1956, Bull. zool. Nomencl. $12: 320$ ) :-

I have just received a separate on the proposed use of the Plenary Powers regarding Acidaspis tuberculatus, Acanthaloma Conrad, 1840, and other names.

I reviewed this situation myself in 1947 and have reached the same conclusions as those presented by Dr. Whittington. I therefore urge that the Commission use the Plenary Powers to take the action requested in paragraph 12 of the above-cited Reference.
8. Support received from Christian Poulsen (Universitetets Mineralogisk-Geologiske Institut, Copenhagen) : On 1st November 1956 Professor Christian Poulsen (Universitetets MineralogiskInstitut, Copenhagen) sent the following note of support to the Office of the Commission (Poulsen, 1956, Bull. zool. Nomencl. 12 : 320) :-

This letter is sent in order to inform the ICZN that I accept the lines of argument put forward by Dr. H. B. Whittington in his application concerning validation of the specific name tuberculatus as used in the combination Acidaspis tuberculatus Hall (J.W.) in 1859 and suppression of the generic name Acanthaloma Conrad, 1840 (Class Trilobita) and that I highly recommend the actions proposed in connection with this matter.
9. No Objection Received : No objection to the action proposed in the present case was received from any source.

## III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

10. Issue of Voting Paper V.P.(57)4 : On 22nd January 1957 a Voting Paper (V.P.(57)4) was issued in which the Members of the Commission were invited to vote either for, or against, " the proposal relating to the specific name tuberculatus Hall (J.W.),

1859, as used in the combination Acidaspis tuberculatus, as set out in Points (1) to (6) in paragraph 12 on pages 24 and 25 of Volume 12 of the Bulletin of Zoological Nomenclature" [i.e. in the paragraph numbered as above in the paper reproduced in the first paragraph of the present Opinion].
11. The Prescribed Voting Period: As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 22nd April 1957.
12. Particulars of the Voting on Voting Paper V.P.(57)4 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(57)4 was as follows :-
(a) Affirmative Votes had been given by the following twentythree (23) Commissioners (arranged in the order in which Votes were received) :

Hering ; Boschma ; Holthuis ; Prantl ; Lemche ; Mayr ; Dymond ; Bodenheimer; Vokes; Riley; Esaki ; Key ; Hemming ; Bonnet ; Jaczewski ; Mertens ; Stoll ; Cabrera ; do Amaral ; Kühnelt ; Tortonese ; Sylvester-Bradley ; Miller ;
(b) Negative Votes:

None ;
(c) On Leave of Absence, one (1) :

Bradley (J.C.) ;
(d) Prevented from voting by interruption of postal communications consequent upon political disturbances, one (1) :

Hankó ;
(c) Voting Papers not returned:

None.
13. Declaration of Result of Vote : On 24th April 1957, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(57)4, signed a Certificate that the Votes cast were as set out in paragraph 12 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.
14. Preparation of the Ruling given in the present " Opinion ": On 14th September 1957, Mr. Hemming prepared the Ruling given in the present Opinion and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(57)4.
15. Original Reference for the specific name "tuberculatus" as now validated in the combination "Acidaspis tuberculatus" as from Hall (1859) : The following is the reference as from which the specific name tuberculatus has been validated under the Plenary Powers in the combination Acidaspis tuberculatus as from Hall (1859) by the Ruling given in the present Opinion:
tuberculatus, Acidaspis, Hall (J.W.), 1859, Geol. Surv. New York, Pal. 3 : 368-370
16. Other Original References : The following are the original references for the generic names and specific names placed on Official Lists and Official Indexes by the Ruling given in the present Opinion, other than the reference for the specific name
tuberculatus Hall, 1859, as published in the combination Acidaspis tuberculatus, which has been specified in paragraph 15 above :-

Acanthaloma Conrad, 1840, Third Ann. Rep. pal. Dep. geol. Surv. New York, Assembly No. 50:205

Acantholoma [sic] Conrad, 1841, Fifth Ann. Rep. Pal. State New York, Assembly No. 150 : 31

Acantholoma [sic], Castelnau, 1843, Essai Syst. silur. Amér. sept. : 23
conradi, Acantholoma [sic], CasteInau, 1843, Essai Syst. silur. Amér. sept. : 23
leonhardi, Odontopleura, Barrande, 1846, Notice prélim. Syst. silur. Trilobites Bohême : 58

Leonaspis Richter (R.) \& Richter (E.), 1917, Centralbl. Min. Geol. Palaeont. 1917 : 465
spinosa, Acantholoma [sic], Conrad, 1841, Fifth Ann. Rep. Pal. State New York, Assembly No. $150: 31$
tuberculatus, Acidaspis, Conrad, 1840, Third Ann. Rep. pal. Dep. geol. Surv. New York, Assembly No. 50:205
17. The following is the original reference for the familygroup name placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology by the Ruling given in the present Opinion :-
acanthalominae Prantl \& Přibyl, 1949, Rozpr. Stát. Geol. Úst. Ceskoslovenské Rep. 12 : 18, 35, 133, 151
18. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present Opinion is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.
19. The present Opinion shall be known as Opinion Four Hundred and Ninety-Eight (498) of the International Commission on Zoological Nomenclature.

Done in London, this Fourteenth day of September, Nineteen Hundred and Fifty-Seven.

Secretary to the International Commission<br>on Zoological Nomenclature<br>FRANCIS HEMMING


[^0]:    1 The paper here referred to was published in May 1956 (J. Paleont. $30: 504-528$ ),

[^1]:    2. See footnote 1.
